

In response to an Office Action dated October 7, 1996 (Paper No. 15) as entered in the above-captioned matter, the applicants hereby respectfully submit the following amendment and response.

REMARKS

1. In the present Office Action, the Examiner rejected claims 1-4, 6, 7, 11-14, 17-18, 21, and 24-27 under 35 U.S.C. § 103 as being unpatentable over Dev et al. (U.S. Patent No. 5,504,921) in view of Shing et al. (U.S. Patent No. 5,495,610) and Tseung (U.S. Patent No. 5,036,518). The Examiner also advised the applicant that the Summary of the Invention is missing from the specification. These rejections are traversed and reconsideration is hereby respectfully requested.

2. Claims 1-4, 6, 7, 11-14, 17-18, 21, and 24-27 were rejected under 35 U.S.C. § 103 as being unpatentable over Dev et al. in view of Shing et al. and Tseung. In particular, the Examiner asserts that Dev et al. describe a system comprising a host computer that receives network information from a user and, upon receiving the network information, stores the network information. The Examiner concedes that Dev et al. do not detail the steps of "determining whether the plurality of users need to receive specific user information, wherein determination is based on the stored network information" and "transmitting the specific user information simultaneously to each of the plurality of users via a . . . single wireless communication channel" (See, e.g., Office Action p. 3, line 1). However, the Examiner asserts that Tseung describes simultaneous transmission of information from a retransmission computer (20) to a plurality of users (24, 26, 28) over a wireless communication channel and Shing et al. describe a system that includes the above-mentioned step of "determining". The Examiner ultimately concludes that it would have been obvious to one of ordinary skill in the

art to combine the teachings of Dev et al., Tseung, and Shing et al. to arrive at the method of the present invention. The applicants disagree with the Examiner's characterization of the present invention in view of the cited references.

Dev et al. describe a serial connection of computer networks (i.e., the groupings of computers in each building (42, 48, 52)) to a network management system (shown in Fig. 1) that includes a host computer (device communication manager (14) and virtual network machine (12)). As shown in Fig. 2, the computer networks are interconnected either via a wireline bridge (50) or via interface devices (59, 60) which communicate by a packet switching system, a microwave link, or a satellite link. [See Dev et al., column 4, lines 41-47].

During normal operation, the network management system performs two primary operations. First, it services user requests from the user of the network management system as entered via the user interface (10). Second, it provides network information, such as alarms, events, or statistics, to the network management system user via the user interface (10). In addition, the virtual network machine (12) polls the network (i.e., the computer networks) to obtain information for updating network models. The received information is processed so that the operational status, faults, and other information pertaining to the network are presented to the network management system user in a systemized and organized manner. [See Dev et al., column 4, lines 53-65].

The virtual network machine (12) also includes an event log, a statistics log, and an alarm log. These logs allow information contained in the network models to be organized and presented to the network management system user via the user interface (10) in the form of event messages, statistics history messages, and alarm log messages. The

event messages sent to the user interface (10) can utilize a filter process that is specified by the network management system user. Any information contained in the event message can be used for event filtering. The statistics history messages provide statistical information on user-specified parameters or functions and, similar to the event messages, can utilize a filter process that is specified by the network management system user. [See Dev et al., column 7, line 32 to column 8, lines 10].

Therefore, in the language of the present invention, Dev et al. describes user devices (computers 30-35, 44-46 or computer networks) that transmit "network information" (e.g., device status or the number of errors detected by the device for a given number of received packets) to a host computer (device communication manager (14) and virtual network machine (12)), which stores the network information and uses the network information to create network models. Once received and processed, the host computer provides the "network information" or reformulations thereof (i.e., the event, statistical history, and alarm log messages) to the user of the host computer. Thus, Dev et al. does not teach or suggest providing any information to any of the user devices (30-35, 44-46). Rather, Dev et al. describe presentation of network information only to the user of the host computer.

The Examiner states that "one of skill in the art would realize [the information provided to the user of the host computer] could be easily forwarded across the network of [Dev et al.'s] figure 2" since "much of the information collected [by the host computer] would be of value to other users." The applicants submit that the present invention does not simply forward collected network information to user devices. On the contrary, the host computer of the present invention determines whether user devices need "specific user information" based on "stored network information" and, when needed, transmits "the specific user information

... to the plurality of users." Thus, in the present invention, the information transmitted to the users (specific user information) is distinct from the information collected and stored by the host computer (network information). Accordingly, the present invention does not simply "forward" information across a network.

Shing et al. describe a method for creating and electronically distributing a new release of software to network computers (3). Once a software release is created and stored in a software warehouse (4), the host computer (7) determines which workstations (3) are to receive the new release. This determination is made by scanning tables of a repository (5) of the host computer (7) to determine the release versions of each workstation (3). The repository tables are updated with release information after each download of a new release. Upon determining which workstations (3) need the new release, the host computer (7) transmits a download order to each affected workstation (3) instructing the affected workstation (3) to download the new release from the warehouse (4). [See Shing et al., column 22, line 29 to column 23, line 35]. Therefore, similar to the present invention, Shing et al. determine whether users need to receive user information (software updates). However, in contrast to the present invention, Shing et al. do not make the determination based on "network information" received from the users. Rather, Shing et al. make the determination based solely on information about the users maintained at the host computer. Thus, if one or more user computers change hardware platform and need a different release of software due to the change in platform (e.g., need a Macintosh™ version of word processing software instead of a DOS™ version), the host computer of Shing et al. would not be aware of this change since it does not receive network information from the user computers and, therefore, would not know that some of the computers need software and which software is needed. The present invention overcomes this deficiency in Shing et al.

Tseung describes a system that provides reliable data transmission for one-to-many communications among data processing stations. Such transmissions (e.g., software or software updates) can be sent to multiple users simultaneously over the one-to-many radio channel. However, unlike the present invention, Tseung does not determine what transmission to broadcast from one data processing station (e.g., 24(1) via retransmission station (20)) based on receipt of network information from other data processing stations (e.g., 24(2)-24(N)). The broadcast of information from one station in Tseung is independent of the needs of the other stations and is not based on information, network or otherwise, received from the other stations. By contrast, the broadcast of user information in the present invention is directly dependent on network information provided by the users.

In sum, the applicants submit that the combination of Dev et al., Shing et al., and Tseung provides a method for distributing software among users of a data processing system and updating a network manager as to the operational status of the network during the distribution. That is, the applicants submit that the combination of references suggest using the network monitoring techniques of Dev et al. to monitor the transfer of information described by Shing et al. and Tseung. However, the applicants submit that it is not obvious from the teachings and suggestions of the cited references to base the information distributed by the host computer (e.g., software updates) on the information received from the users, as in the present invention, because none of the three references, nor the prior art as a whole, makes such a suggestion. Dev et al. teaches and suggests only that the network information received from the users be used to identify the condition (status) of the network and does not teach or suggest that such network information be used to base any future transmissions on. As further evidence of the applicants' asserted nonobviousness, the


Examiner himself states that Dev et al. in combination with the prior art as a whole suggests only the forwarding of the network information received by the host computer to users other than the host computer user. However, as described in detail above, the present invention does not forward information, but rather conveys specific user information based on received network information. The fact that, as stated by the Examiner, Shing et al. "allow updates to be distributed automatically" and Tseung "allows updates to be distributed simultaneously" does not overcome the deficiency in Dev et al. of relating the distributed "specific user information" to the received "network information," as in independent claims 1, 11, and 21 of the present invention.

Claims 2-4, 6, 7, 12-14, 17-18, and 24-27 depend upon one of either claims 1, 11, or 21, which claims have been shown allowable above. Therefore, since claims 2-4, 6, 7, 12-14, 17-18, and 24-27 introduce additional subject matter that, particularly when considered in the context of the recitations of their respective base claims, constitutes patentable subject matter, the applicants respectfully submit that claims 2-4, 6, 7, 12-14, 17-18, and 24-27 are in proper condition for allowance.

3. The Examiner is invited to contact the undersigned by telephone or facsimile, if the Examiner believes that such a communication would advance the prosecution of this application.

Respectfully submitted,

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